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CLAIMS

1. A well (1) for extracting, observing and/or lowering ground water, comprising a standpipe (2) having at least one filter pipe area (3) and comprising at least one pump (6) located in the standpipe (3), characterised in that associated with the filter pipe area (3) is a spraying device (9) for spraying the filter pipe area (3) and/or the well area adjacent to the filter pipe area (3) and that the spraying device (9) is connected to at least one pressure line (10) to supply the spraying device (10) with a medium to be sprayed.
2. The well according to claim 1, characterised in that the spraying device (9) comprises at least one annular channel (11) affixed to the filter pipe area (3) having a plurality of nozzles (12).
3. The well according to claim 1 or 2, characterised in that at least some of the nozzles (12) are aligned parallel to the pipe axis adjacent to the wall of the filter pipe area (3) or at an acute angle to the pipe axis.
4. The well according to any one of the preceding claims, characterised in that the nozzles (12) are adjustable.
5. The well according to any one of the preceding claims, characterised in that at least one nozzle (12) has a valve, preferably a spring-loaded check valve.
6. The well according to any one of the preceding claims, characterised in that the spraying device (9) has a base plate (13) connected to the annular channel (11) which is placed on the end of the filter pipe area (3) and that the nozzles (12) of the annular channel (11)

connected to the base plate (13) are not directed downwards.

7. The well according to any one of the preceding claims, characterised in that the pressure line (10) consisting in particular of plastic or stainless steel is fixed to the standpipe (2) on the outside.
8. The well according to any one of the preceding claims, characterised in that the pump line (7) of the pump (6) communicates with an outlet at the well head (8) via which the pumped water can be led off before, during or after a spraying without there being any need to dismantle the well head (8) or remove the pump (6).
9. The well according to any one of the preceding claims, characterised in that the pressure line (10) is connected to an above-ground supply device (17) for supplying a liquid and/or gaseous medium to the spraying device (9).
10. The well according to any one of the preceding claims, characterised in that the supply device (17) is constructed for supplying the medium at constant pressure and/or with pressure surges.
11. The well according to any one of the preceding claims, characterised in that the supply device (17) has a pressure limiter and/or a time clock (20).
12. The well according to any one of the preceding claims, characterised in that the supply device (17) is coupled to the outlet (14) such that water is automatically removed from the outlet for a predetermined time interval depending on the spraying.

13. A method for regenerating a well (1) provided to extract, observe and/or lower ground water, according to any one of the preceding claims, characterised in that for regenerating the filter pipe area (3), a medium is supplied via a pressure line (10) to a spraying device (9) located in the area of the filter pipe area (3), which sprays the medium into the well area adjacent to the filter pipe area (3) or onto the filter pipe area (3).
14. The method according to claim 13, characterised in that pressure surges are produced during the spraying.
15. The method according to claim 13 or 14, characterised in that the medium comprises water and/or water treatment agent, especially hydrogen peroxide and/or charcoal dust.
16. The well (1) for extracting, observing and/or lowering ground water, comprising a standpipe (2) having at least one filter pipe area (3) and comprising at least one pump (6) located in the standpipe (3), especially according to any one of the preceding claims, characterised in that the standpipe (2) is arranged as an inner standpipe in an outer standpipe (22), that the outer standpipe (22) is fixedly connected to the surrounding rock mass (23) and that the inner standpipe (2) is constructed so that it can be withdrawn from the outer standpipe (22).
17. The well according to any one of the preceding claims, characterised in that the filter pipe area (3) projects over the lower end of the outer standpipe (22) ..

18. The well according to any one of the preceding claims, characterised in that spacers are provided for positioning the inner standpipe (2).
19. The well according to any one of the preceding claims, characterised in that the radial extension of a spacer is greater than the outside diameter of the pressure line (10).
20. The well (1) for extracting, observing and/or lowering ground water, comprising a standpipe (2) having at least one filter pipe area (3) and comprising at least one pump (6) located in the standpipe (3), especially according to any one of the preceding claims, characterised in that the outer standpipe (22) is sealed with respect to the surrounding rock mass (23) by means of a hydraulic mineral binder (24) such that water is merely obtained from the water-bearing layer (A, B) in which the filter pipe area (3) is located and an inflow of external water from other layers is avoided.
21. The well according to any one of the preceding claims, characterised in that the binder (24) exhibits highly and permanently plastic behaviour after setting.
22. The well according to any one of the preceding claims, characterised in that a water/solid mixture having a predominant fraction of fine-grained marl, preferably having a fraction of up to 30 % bentonite is used as binder (24).